

# UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
7927.90

Total Pages in this Submission  
3

## TO THE ASSISTANT COMMISSIONER FOR PATENTS

Box Patent Application  
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**GRAPHICAL METHOD AND SYSTEM FOR MODELING AND ESTIMATING CONSTRUCTION PARAMETERS**

and invented by:

James B. Loveland

If a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:

☒ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: 09/991,148

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.:

Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.:

Enclosed are:

### Application Elements

1. ☒ Filing fee as calculated and transmitted as described below
2. ☐ Specification having \_\_\_\_\_ pages and including the following:
  - a. ☐ Descriptive Title of the Invention
  - b. ☐ Cross References to Related Applications (if applicable)
  - c. ☐ Statement Regarding Federally-sponsored Research/Development (if applicable)
  - d. ☐ Reference to Microfiche Appendix (if applicable)
  - e. ☐ Background of the Invention
  - f. ☐ Brief Summary of the Invention
  - g. ☐ Brief Description of the Drawings (if drawings filed)
  - h. ☐ Detailed Description
  - i. ☐ Claim(s) as Classified Below
  - j. ☐ Abstract of the Disclosure

**UTILITY PATENT APPLICATION TRANSMITTAL**  
**(Small Entity)**

*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

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**Application Elements (Continued)**

3. ☐ Drawing(s) *(when necessary as prescribed by 35 USC 113)*  
a. ☐ Formal      b. ☐ Informal      Number of Sheets \_\_\_\_\_
4. ☒ Oath or Declaration  
a. ☐ Newly executed *(original or copy)*      ☐ Unexecuted  
b. ☒ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional application only)*  
c. ☐ With Power of Attorney      ☐ Without Power of Attorney  
d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference *(usable if Box 4b is checked)*  
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☐ Computer Program in Microfiche
7. ☐ Genetic Sequence Submission *(if applicable, all must be included)*  
a. ☐ Paper Copy  
b. ☐ Computer Readable Copy  
c. ☐ Statement Verifying Identical Paper and Computer Readable Copy

**Accompanying Application Parts**

8. ☐ Assignment Papers *(cover sheet & documents)*
9. ☐ 37 CFR 3.73(b) Statement *(when there is an assignee)*
10. ☐ English Translation Document *(if applicable)*
11. ☐ Information Disclosure Statement/PTO-1449      ☐ Copies of IDS Citations
12. ☒ Preliminary Amendment
13. ☒ Acknowledgment postcard
14. ☒ Certificate of Mailing  
☐ First Class      ☒ Express Mail *(Specify Label No.):* E;448492398US

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(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
7927.90

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## Accompanying Application Parts (Continued)

15. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)

16. ☐ Small Entity Statement(s) - Specify Number of Statements Submitted: \_\_\_\_\_

17. ☐ Additional Enclosures (please identify below):

## Fee Calculation and Transmittal

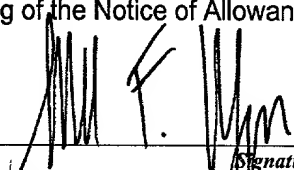
### CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	2	- 20 =	0	x \$9.00	\$0.00
Indep. Claims	1	- 3 =	0	x \$39.00	\$0.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$380.00
OTHER FEE (specify purpose) _____					\$0.00
TOTAL FILING FEE					\$380.00

- ☒ A check in the amount of **\$380.00** to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. **500843** as described below. A duplicate copy of this sheet is enclosed.
- ☐ Charge the amount of \_\_\_\_\_ as filing fee.
- ☒ Credit any overpayment.
- ☐ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Dated:

Aug. 31, 1999

  
Signature  
Michael F. Krieger  
Attorney for Applicant  
Kirtan & McConkie  
1800 Eagle Gate Tower  
60 East South  
Salt Lake City, UT 84111  
(801) 321-4814

cc:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of )  
 )  
James B. Loveland )  
 )  
Serial No.: 09/\_\_\_\_\_,\_\_\_\_\_) Art Unit  
 ) 2772  
Filed: August 31, 1999 )  
 )  
For: GRAPHICAL METHOD AND )  
 )  
SYSTEM FOR MODELING AND )  
 )  
ESTIMATING CONSTRUCTIONS )  
 )  
PARAMETERS )  
 )  
Examiner: Jeffrey Rossi )

**PRELIMINARY AMENDMENT**

Box: **AMENDMENT**  
Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

As discussed in our conversation of August 31, 1999, set forth below are the two claims left unresolved in the parent case.

**IN THE CLAIMS**

Please add the following new claims:

21. A method for computerized modeling of a chamber to enable estimation of chamber attributes, comprising the steps of:

(a) selecting a default polyhedron as an estimation polyhedron, said estimation polyhedron having a plurality of vertices and facets each facet having at least one characteristic and comprised of at least one estimation attribute including an area;

(b) dragging at least one of said plurality of vertices to alter at least one of said characteristics of a facet of said estimation polyhedron to approximate said chamber undergoing estimation;

(c) recalculating said at least one estimation attribute of said altered facet and adjacent ones of said plurality of facets of said estimation polyhedron as modified by said morphing step; and

(d) repeating said altering and recalculating steps until said estimation polyhedron accurately depicts said chamber such that said calculated estimation attribute accurately estimates said chamber.

22. The method as recited in claim 21, wherein:

said altering step further comprises the step of when additional facets better approximate said chamber undergoing approximation, partitioning said selected facet of said estimation polyhedron into at least a first and a second altered facet to provide an improved estimation of said chamber undergoing estimation; and

said recalculating step further comprising the step of including additional estimation attributes corresponding to said first and second altered facets.

Dated this 31<sup>st</sup> day of August , 1999.

Respectfully submitted,



Michael F. Krieger  
Attorney for Applicant  
Registration No. 35,232

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PATENT APPLICATION

Docket No: 10621.47

DECLARATION, POWER OF ATTORNEY, AND PETITION

I, James B. Lovcland, declare: that I am a citizen of the United States of America; that my residence and post office address is 1885 N. Skyline Drive, Orem, Utah 84097; that I verily believe I am the original, first, and sole inventor of the subject matter of the invention or discovery entitled GRAPHICAL METHOD AND SYSTEM FOR MODELING AND ESTIMATING CONSTRUCTION PARAMETERS, for which a patent is sought and which is described and claimed in the specification attached hereto; that I have reviewed and understand the contents of the above-identified specification, including the claims; and that I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Section 1.56(a) of Title 37 of the Code of Federal Regulations.

I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful, false statements may jeopardize the validity of the application or any patent issuing thereon.

I hereby appoint as my attorneys and/or patent agents: H. ROSS WORKMAN, Registration No. 25,230; RICK D. NYDEGGER, Registration No. 28,651; DAVID O. SEELEY, Registration No. 30,148; JONATHAN W. RICHARDS, Registration No. 29,843; JOHN C. STRINGHAM, Registration No. 40,831; MICHAEL F. KRIEGER, Registration No. 35,232; BRADLEY K. DeSANDRO, Registration No. 34,521; JOHN M. GUYNN, Registration No. 36,153; GREGORY M. TAYLOR, Registration No. 34,263; DANA L. TANGREN, Registration No. 37,246; KEVIN

0939230 0298260

B. LAURFENCE, Registration No. 38,219; ERIC L. MASCHOFF, Registration No. 36,596; SUSAN K. MORRIS, Registration No. 39,780; JEFFREY L. RANCK, Registration No. 38,590; C. J. VEVERKA, Registration No. 40,858; JONATHAN D. WOOD, Registration No. 39,076; ROBYN L. PHILLIPS, Registration No. 39,330; DAVID B. DELLENBACH, Registration No. 39,166; TIMOTHY M. FARRELL, Registration No. 37,321; JOHN N. GREAVES, Registration No. 40,362, LENA I. VINITSKAYA, Registration No. 39,448; and KEVIN K. JOHANSON, Registration No. 38,506, with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith. All correspondence and telephonic communications should be directed to:

Michael F. Krieger  
WORKMAN, NYDEGGER & SEELEY  
1000 Eagle Gate Tower  
60 East South Temple  
Salt Lake City, Utah 84111

Wherefore, I pray that Letters Patent be granted to me for the invention or discovery described and claimed in the foregoing specification and claims, declaration, power of attorney, and this petition.

Signed at Orem, Utah, this 15<sup>th</sup> day of  
December, 1997.

Inventor:

James B. Loveland  
James B. Loveland  
1885 N. Skyline Drive  
Orem, Utah 84097

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